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10/577,067

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EXAMINER

ANDREWS, MICHAEL

ART UNIT

PAPER NUMBER

2834

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DELIVERY MODE

02/16/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/577,067 | Applicant(s) AMANO, RYUICHIRO | |
| | Examiner MICHAEL ANDREWS | Art Unit 2834 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>JP2003-134716.pdf</u> |

DETAILED ACTION

This Office Action is responsive to the Applicant's communication filed December 16, 2009. In virtue of this communication and the amendment concurrently filed:

- claims 1-4 were previously pending;
- claims 5-16 were added by the amendment; and thus
- claims 1-16 are now pending in the instant application.

Response to Arguments

1. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

As a first matter of formalities (page 7, lines 11-17), the Applicant has requested an initialed copy of an Information Disclosure Statement dated October 2, 2008. The Applicant is advised that no such document was received by the Office. The only Information Disclosure Statement received in this application, dated April 24, 2006, was initialed and sent with the previous Office action.

The Applicant's first argument (page 8, lines 8-25), with regard to the rejections of claims 1-4 as failing to meet the requirements of 35 U.S.C 112, is persuasive. Those rejections are therefore withdrawn.

The Applicant's second argument (page 8, line 26 to page 11, line 3) states that the newly added limitations of independent claim 1 are not disclosed by the previously cited references. The Applicant's third argument (page 11, lines 7-23) states that the limitations of the newly added claims, claims 5-16, are not disclosed by the previously

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cited references. These points are moot in view of the new grounds of rejection, in view of Miyawaki et al. (JP 2003-134716), given below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyawaki et al. (JP 2003-134716), hereinafter referred to as “Miyawaki”.

With regard to claim 1, Miyawaki discloses a stator [10] of a motor (see [0002] and figures 1-6) comprising:

a stator core [11] having a plurality of teeth [12] (see [0007] and figure 3);

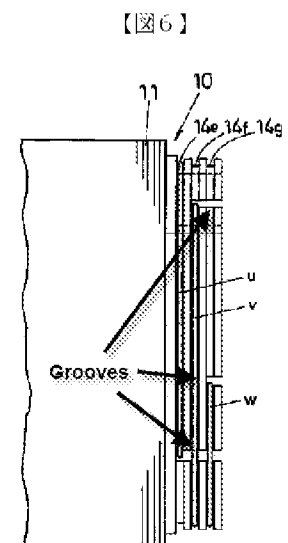
a plurality of windings [U, V, W] with a part of each of the windings being wound around the teeth [12] of the stator core [11] to form a tooth winding portion [U1, U2, V1, V2, W1, W2] and a lead-out wire [u, 2u, v, 2v, w, 2w] extending from a corresponding one of the tooth winding portions (see [0008] and figures 1-3); and

an insulator [14] including a plurality of lead-out guide portions [14a/b/c] with the lead-out wires [u, 2u, v, 2v, w, 2w] being drawn out from the corresponding one of the tooth winding portions [U1, U2, V1, V2, W1, W2] of the windings [U, V, W] (see [0008] and figure 3),

the lead-out guide portions [14a/b/c] being disposed on a radially outward side of respective slots [13], each respective slot [13] being defined between two adjacent teeth [12] of the stator core [11], and each lead-out guide portion [14a/b/c] being offset toward an adjacent tooth [12] from a center line of the respective slot [13] (see figure 3).

With regard to claim 2, Miyawaki discloses the stator according to claim 1, as stated above, wherein each of the windings [U, V, W] being connected to a neutral wire [1u, 2u, 1v, 2v, 1w, 2w] (see [0008] and figure 2), with the tooth winding portions [U1, U2, V1, V2, W1, W2] including a first tooth winding portion [U1] that follows the neutral wire [2u] and is wound about a first tooth [12a] of the teeth [12] (see figure 2 and 3), and a second tooth winding portion [U2] that is wound about a second tooth [12d] of the teeth [12] that is radially opposed to the first tooth [12a] (see figure 3) with one end connected to the neutral wire [1u, 2u] (see figure 2),

each of the windings [U, V, W] further including a crossover wire (see figures 2-3; the crossover wires are those extending from U2 to u, from u to U1, from V1 to v, etc.), and a power wire [u, v, w] with the crossover wire extending from the first tooth winding portion [U1] toward the second tooth winding portion [U2] and with the power wire connecting the crossover wire to the second tooth winding portion [U2] (see figure 2), such that a first lead-out portion is formed between the first tooth winding portion [U1] and the second tooth winding portion [U2] (see figure 2; the lead out portion is where the crossover wires meet at [14a]) and a



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second lead-out portion is formed between the second tooth winding portion [U2] and the neutral wire [2u] (see figure 2), and the first and second lead-out portions serve as the lead-out wires of the first and second tooth winding portions (see figure 2; both lead-out portions connect each coil to neutral and to power).

With regard to claim 3, Miyawaki discloses the stator according to claim 1, as stated above, wherein each of the lead-out guide portions [14a/b/c] comprises a groove (see annotated figure 6 at right) provided adjacent to a periphery of the corresponding one of the tooth winding portions [13a-13f] (see figure 3).

With regard to claim 4, Miyawaki discloses the stator according to claim 2, as stated above, wherein each of the lead-out guide portions [14a/b/c] comprises a groove (see annotated figure 6) provided adjacent to a periphery of a corresponding one of the first and second tooth winding portions [13a-13f] (see figure 3).

With regard to claim 5, Miyawaki discloses the stator according to claim 3, as stated above, wherein the grooves of the lead out guide portions [14a/b/c] are circumferentially spaced from each other (see figure 6).

With regard to claim 6, Miyawaki discloses the stator according to claim 4, as stated above, wherein the grooves of the lead out guide portions [14a/b/c] are circumferentially spaced from each other (see figure 6).

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With regard to claim 7, Miyawaki discloses the stator according to claim 3, as stated above, wherein the stator core [10] includes a core main body [11] with the teeth [12] extending radially inwardly from the core main body (see [0007] and figure 3).

With regard to claim 8, Miyawaki discloses the stator according to claim 7, as stated above, wherein the insulator [14] is provided on an axial end surface of the core main body [11] (see figure 5) with the lead out guide portions formed in an axial end surface of the insulator [14] (see figure 6).

With regard to claim 9, Miyawaki discloses the stator according to claim 4, as stated above, wherein the stator core [10] includes a core main body [11] with the teeth [12] extending radially inwardly from the core main body (see [0007] and figure 3).

With regard to claim 10, Miyawaki discloses the stator according to claim 9, as stated above, wherein the insulator [14] is provided on an axial end surface of the core main body [11] (see figure 5) with the lead out guide portions [14a/b/c] formed in an axial end surface of the insulator [14] (see figure 3).

With regard to claim 11, Miyawaki discloses the stator according to claim 1, as stated above, wherein the lead out guide portions [14a/b/c] are circumferentially spaced from each other (see figure 3).

With regard to claim 12, Miyawaki discloses the stator according to claim 2, as stated above, wherein the lead out guide portions [14a/b/c] are circumferentially spaced from each other (see figure 3).

With regard to claim 13, Miyawaki discloses the stator according to claim 1, as stated above, wherein the stator core [10] includes a core main body [11] with the teeth [12] extending radially inwardly from the core main body (see [0007] and figure 3).

With regard to claim 14, Miyawaki discloses the stator according to claim 13, as stated above, wherein the insulator [14] is provided on an axial end surface of the core main body [11] (see figure 5) with the lead out guide portions [14a/b/c] formed in an axial end surface of the insulator [14] (see figure 3).

With regard to claim 15, Miyawaki discloses the stator according to claim 2, as stated above, wherein the stator core [10] includes a core main body [11] with the teeth [12] extending radially inwardly from the core main body (see [0007] and figure 3).

With regard to claim 16, Miyawaki discloses the stator according to claim 15, as stated above, wherein the insulator [14] is provided on an axial end surface of the core main body [11] (see figure 5) with the lead out guide portions [14a/b/c] formed in an axial end surface of the insulator [14] (see figure 3).

Citation of Relevant Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art:

- Futami et al. (US 2003/0020344 A1) discloses an electric motor with a plurality of windings and winding terminal receiving portions;
- Eggers et al. (US 2002/0135259 A1) discloses a stator having a plurality of teeth and windings with an insulator which supports the lead out wires;

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- Suzuki et al. (US 6,177,751 B1) discloses a stator with insulators between the teeth and windings.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Andrews whose telephone number is (571)270-7554. The examiner can normally be reached on Monday through Thursday between the hours of 7:30 and 4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Quyen Leung can be reached at (571)272-8188. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Quyen Leung/
Supervisory Patent Examiner, Art Unit 2834

/M. A./
Examiner, Art Unit 2834